

AMENDMENTS TO THE CLAIMS

Please replace the pending claims with the following claim listing:

1. **(Previously Presented)** An optical waveguide circuit comprising:
 an optical waveguide;
 a first loss component for causing a diffraction loss to light propagating through said optical waveguide; and
 a second loss component provided at least one of before and after said first loss component,
 wherein said second component includes a region where light confinement is weakened with respect to said optical waveguide and the width of the region is determined such that a diffraction loss in the region becomes smaller than the diffraction loss in the first component, and
 wherein the spacing between the first loss component and the region is determined at such a distance that the light passing through the region can reach the first loss component before a leakage of the light at the region completely turns to radiation so that total diffraction loss at the first and second loss components becomes smaller than the diffraction loss at the first loss component without the second loss component.
2. **(Original)** The optical waveguide circuit as claimed in claim 1, further comprising a beam spot size varying section for varying a beam spot size of a lightwave launched into said second loss component.
- 3-6. **(Cancelled)**
7. **(Original)** The optical waveguide circuit as claimed in claim 1, wherein said optical waveguide comprises a cladding and core composed of silica-based glass.
8. **(Cancelled)**

9. **(Cancelled)**

10. **(Original)** The optical waveguide circuit as claimed in claim 7, wherein said first loss component is a groove formed by removing part of a cladding and core from said optical waveguide.

11-15. **(Cancelled)**

16. **(Original)** The optical waveguide circuit as claimed in claim 10 wherein said groove is filled with a material different from said core.

17. **(Cancelled)**

18. **(Cancelled)**

19. **(Original)** The optical waveguide circuit as claimed in claim 16, wherein the material filling said groove has a refractive index temperature coefficient different in sign from a temperature coefficient of an effective refractive index of said optical waveguide.

20-33. **(Cancelled)**

34. **(Original)** The optical waveguide circuit as claimed in claim 7, wherein said second loss component consists of a waveguide gap formed by replacing part of a core of said optical waveguide with a cladding.

35. **(Cancelled)**

36. **(Cancelled)**

37. **(Original)** The optical waveguide circuit as claimed in claim 10, wherein said second loss component consists of a waveguide gap formed by replacing part of a core of said optical waveguide with a cladding.

38-138. **(Cancelled)**

139. **(Original)** The optical waveguide circuit as claimed in claim 7, wherein said second loss component consists of a groove formed by removing part of the cladding and core from said optical waveguide, and wherein said groove is filled with air or a material with a specified refractive index.

140. **(Cancelled)**

141. **(Cancelled)**

142. **(Original)** The optical waveguide circuit as claimed in claim 10, wherein said second loss component consists of a groove formed by removing part of the cladding and core from said optical waveguide, and wherein said groove is filled with air or a material with a specified refractive index.

143-194. **(Cancelled)**

195. **(New)** The optical waveguide circuit as claimed in claim 1, wherein the optical waveguide comprises:

a first optical waveguide having a first width and first thickness;

a second optical waveguide having a second width and second thickness; and

a tapered section connected between said first optical waveguide and said second optical waveguide, for varying the first width and first thickness to the second width and second thickness; and

wherein the first loss component for causing a diffraction loss to light propagating through said second optical waveguide.

196. **(New)** The optical waveguide circuit as claimed in claim 195, wherein one of the following conditions holds: the first width is less than the second width; the first thickness is less than the second thickness; both the first width and first thickness are less than the second width and second thickness; the first width is greater than the second width; the first thickness is greater than the second thickness; both the first width and first thickness are greater than the second width and second thickness.

197. **(New)** The optical waveguide circuit as claimed in claim 1, wherein the optical waveguide comprises:

- a first optical waveguide having a first width and first thickness;

- a second optical waveguide having a second width and second thickness;

- a third optical waveguide having a third width and third thickness;

- a first tapered section connected between said first optical waveguide and said second optical waveguide, for varying the first width and first thickness to the second width and second thickness; and

- a second tapered section connected between said second optical waveguide and said third optical waveguide, for varying the second width and second thickness to the third width and third thickness; and

- wherein the first loss component for causing a diffraction loss to light propagating through said second optical waveguide.

198. **(New)** The optical waveguide circuit as claimed in claim 197, wherein one of the following conditions holds: the first width and the third width are less than the second width; the first thickness and the third thickness are less than the second thickness; the first width and the first thickness and the third width and the third thickness are less than the second width and second thickness; the first width and the third width are greater than the second width; the first thickness and the third thickness are greater than the second thickness; the first width and the first thickness and the third width and the third thickness are greater than the second width and the second thickness.

199. **(New)** The optical waveguide circuit as claimed in claim 195, wherein said optical waveguide comprises a cladding and core composed of silica-based glass.

200. **(New)** The optical waveguide circuit as claimed in claim 197, wherein said optical waveguide comprises a cladding and core composed of silica-based glass.

201. **(New)** The optical waveguide circuit as claimed in claim 199, wherein said first loss component is a groove formed by removing part of a cladding and core from said optical waveguide.

202. **(New)** The optical waveguide circuit as claimed in claim 200, wherein said first loss component is a groove formed by removing part of a cladding and core from said optical waveguide.

203. **(New)** The optical waveguide circuit as claimed in claim 10, wherein said groove consists of a plurality of grooves disposed at specified spacings.

204. **(New)** The optical waveguide circuit as claimed in claim 201, wherein said groove consists of a plurality of grooves disposed at specified spacings.

205. **(New)** The optical waveguide circuit as claimed in claim 202, wherein said groove consists of a plurality of grooves disposed at specified spacings.

206. **(New)** The optical waveguide circuit as claimed in claim 201, wherein said groove is filled with a material different from said core.

207. **(New)** The optical waveguide circuit as claimed in claim 202, wherein said groove is filled with a material different from said core.

208. **(New)** The optical waveguide circuit as claimed in claim 206, wherein the material filling said groove has a refractive index temperature coefficient different in sign from a temperature coefficient of an effective refractive index of said optical waveguide.

209. **(New)** The optical waveguide circuit as claimed in claim 207, wherein the material filling said groove has a refractive index temperature coefficient different in sign from a temperature coefficient of an effective refractive index of said optical waveguide.

210. **(New)** The optical waveguide circuit as claimed in claim 10, wherein said groove includes an element with a specified function.

211. **(New)** The optical waveguide circuit as claimed in claim 201, wherein said groove includes an element with a specified function.

212. **(New)** The optical waveguide circuit as claimed in claim 202, wherein said groove includes an element with a specified function.

213. **(New)** The optical waveguide circuit as claimed in claim 210, wherein said element is fixed with an adhesive filling said groove.

214. **(New)** The optical waveguide circuit as claimed in claim 211, wherein said element is fixed with an adhesive filling said groove.

215. **(New)** The optical waveguide circuit as claimed in claim 212, wherein said element is fixed with an adhesive filling said groove.

216. **(New)** The optical waveguide circuit as claimed in claim 210, wherein said element consists of a half wavelength plate.

217. **(New)** The optical waveguide circuit as claimed in claim 211, wherein said element consists of a half wavelength plate.

218. **(New)** The optical waveguide circuit as claimed in claim 212, wherein said element consists of a half wavelength plate.

219. **(New)** The optical waveguide circuit as claimed in claim 210, wherein said element consists of a wavelength pass filter that transmits only light with a specified wavelength.

220. **(New)** The optical waveguide circuit as claimed in claim 211, wherein said element consists of a wavelength pass filter that transmits only light with a specified wavelength.

221. **(New)** The optical waveguide circuit as claimed in claim 212, wherein said element consists of a wavelength pass filter that transmits only light with a specified wavelength.

222. **(New)** The optical waveguide circuit as claimed in claim 199, wherein said second loss component consists of a waveguide gap formed by replacing part of a core of said optical waveguide with a cladding.

223. **(New)** The optical waveguide circuit as claimed in claim 200, wherein said second loss component consists of a waveguide gap formed by replacing part of a core of said optical waveguide with a cladding.

224. **(New)** The optical waveguide circuit as claimed in claim 201, wherein said second loss component consists of a waveguide gap formed by replacing part of a core of said optical waveguide with a cladding.

225. **(New)** The optical waveguide circuit as claimed in claim 202, wherein said second loss component consists of a waveguide gap formed by replacing part of a core of said optical waveguide with a cladding.

226. **(New)** The optical waveguide circuit as claimed in claim 34, wherein said waveguide gap consists of a plurality of waveguide gaps disposed at least one of before and after said first loss component with a specified spacing, and said waveguide gaps reduce their width as they are distant from said first loss component.

227. **(New)** The optical waveguide circuit as claimed in claim 222, wherein said waveguide gap consists of a plurality of waveguide gaps disposed at least one of before and after said first loss component with a specified spacing, and said waveguide gaps reduce their width as they are distant from said first loss component.

228. **(New)** The optical waveguide circuit as claimed in claim 223, wherein said waveguide gap consists of a plurality of waveguide gaps disposed at least one of before and after said first loss component with a specified spacing, and said waveguide gaps reduce their width as they are distant from said first loss component.

229. **(New)** The optical waveguide circuit as claimed in claim 37, wherein said waveguide gap consists of a plurality of waveguide gaps disposed at least one of before and after said first loss component with a specified spacing, and said waveguide gaps reduce their width as they are distant from said first loss component.

230. **(New)** The optical waveguide circuit as claimed in claim 224, wherein said waveguide gap consists of a plurality of waveguide gaps disposed at least one of before and after said first loss component with a specified spacing, and said waveguide gaps reduce their width as they are distant from said first loss component.

231. **(New)** The optical waveguide circuit as claimed in claim 225, wherein said waveguide gap consists of a plurality of waveguide gaps disposed at least one of before and after said first loss component with a specified spacing, and said waveguide gaps reduce their width as they are distant from said first loss component.

232. **(New)** The optical waveguide circuit as claimed in claim 19, wherein said optical waveguide comprises a plurality of arrayed-waveguides; and said groove is formed across said arrayed-waveguides, and wherein said optical waveguide circuit further comprises:

slab waveguides connected to both ends of said arrayed-waveguides.

233. **(New)** The optical waveguide circuit as claimed in claim 208, wherein said optical waveguide comprises a plurality of arrayed-waveguides; and said groove is formed across said arrayed-waveguides, and wherein said optical waveguide circuit further comprises:

slab waveguides connected to both ends of said arrayed-waveguides.

234. **(New)** The optical waveguide circuit as claimed in claim 209, wherein said optical waveguide comprises a plurality of arrayed-waveguides; and said groove is formed across said arrayed-waveguides, and wherein said optical waveguide circuit further comprises:

slab waveguides connected to both ends of said arrayed-waveguides.

235. **(New)** The optical waveguide circuit as claimed in claim 216, wherein said optical waveguide comprises a plurality of arrayed-waveguides; and said groove is formed across said arrayed-waveguides, and wherein said optical waveguide circuit further comprises:

slab waveguides connected to both ends of said arrayed-waveguides.

236. **(New)** The optical waveguide circuit as claimed in claim 217, wherein said optical waveguide comprises a plurality of arrayed-waveguides; and said groove is formed across said arrayed-waveguides, and wherein said optical waveguide circuit further comprises:

slab waveguides connected to both ends of said arrayed-waveguides.

237. **(New)** The optical waveguide circuit as claimed in claim 218, wherein said optical waveguide comprises a plurality of arrayed-waveguides; and said groove is formed across said arrayed-waveguides, and wherein said optical waveguide circuit further comprises:

slab waveguides connected to both ends of said arrayed-waveguides.

238. **(New)** The optical waveguide circuit as claimed in claim 34, wherein said optical waveguide comprises a plurality of arrayed-waveguides; and said groove is formed across said arrayed-waveguides, and wherein said optical waveguide circuit further comprises:

slab waveguides connected to both ends of said arrayed-waveguides.

239. **(New)** The optical waveguide circuit as claimed in claim 222, wherein said optical waveguide comprises a plurality of arrayed-waveguides; and said groove is formed across said arrayed-waveguides, and wherein said optical waveguide circuit further comprises:

slab waveguides connected to both ends of said arrayed-waveguides.

240. **(New)** The optical waveguide circuit as claimed in claim 223, wherein said optical waveguide comprises a plurality of arrayed-waveguides; and said groove is formed across said arrayed-waveguides, and wherein said optical waveguide circuit further comprises:

slab waveguides connected to both ends of said arrayed-waveguides.

241. **(New)** The optical waveguide circuit as claimed in claims 37, wherein said optical waveguide comprises a plurality of arrayed-waveguides; and said groove is formed across said arrayed-waveguides, and wherein said optical waveguide circuit further comprises:

slab waveguides connected to both ends of said arrayed-waveguides.

242. **(New)** The optical waveguide circuit as claimed in claim 224, wherein said optical waveguide comprises a plurality of arrayed-waveguides; and said groove is formed across said arrayed-waveguides, and wherein said optical waveguide circuit further comprises:

slab waveguides connected to both ends of said arrayed-waveguides.

243. **(New)** The optical waveguide circuit as claimed in claim 225, wherein said optical waveguide comprises a plurality of arrayed-waveguides; and said groove is formed across said arrayed-waveguides, and wherein said optical waveguide circuit further comprises:

slab waveguides connected to both ends of said arrayed-waveguides.

244. **(New)** The optical waveguide circuit as claimed in claim 19, wherein said optical waveguide comprises two arm waveguides with different length; and said groove is formed across at least one of said arm waveguides, and wherein said optical waveguide circuit further comprises:

directional couplers connected to both ends of said arm waveguides.

245. **(New)** The optical waveguide circuit as claimed in claim 208, wherein said optical waveguide comprises two arm waveguides with different length; and said groove is formed across at least one of said arm waveguides, and wherein said optical waveguide circuit further comprises:

directional couplers connected to both ends of said arm waveguides.

246. **(New)** The optical waveguide circuit as claimed in claim 209, wherein said optical waveguide comprises two arm waveguides with different length; and said groove is formed across at least one of said arm waveguides, and wherein said optical waveguide circuit further comprises:

directional couplers connected to both ends of said arm waveguides.

247. **(New)** The optical waveguide circuit as claimed in claim 34, wherein
said optical waveguide comprises two arm waveguides with different length; and
said groove is formed across at least one of said arm waveguides, and wherein
said optical waveguide circuit further comprises:
directional couplers connected to both ends of said arm waveguides.
248. **(New)** The optical waveguide circuit as claimed in claim 222, wherein
said optical waveguide comprises two arm waveguides with different length; and
said groove is formed across at least one of said arm waveguides, and wherein
said optical waveguide circuit further comprises:
directional couplers connected to both ends of said arm waveguides.
249. **(New)** The optical waveguide circuit as claimed in claim 223, wherein
said optical waveguide comprises two arm waveguides with different length; and
said groove is formed across at least one of said arm waveguides, and wherein
said optical waveguide circuit further comprises:
directional couplers connected to both ends of said arm waveguides.
250. **(New)** The optical waveguide circuit as claimed in claim 37, wherein
said optical waveguide comprises two arm waveguides with different length; and
said groove is formed across at least one of said arm waveguides, and wherein
said optical waveguide circuit further comprises:
directional couplers connected to both ends of said arm waveguides.
251. **(New)** The optical waveguide circuit as claimed in claim 224, wherein
said optical waveguide comprises two arm waveguides with different length; and
said groove is formed across at least one of said arm waveguides, and wherein
said optical waveguide circuit further comprises:
directional couplers connected to both ends of said arm waveguides.

252. **(New)** The optical waveguide circuit as claimed in claim 225, wherein
said optical waveguide comprises two arm waveguides with different length; and
said groove is formed across at least one of said arm waveguides, and wherein
said optical waveguide circuit further comprises:
directional couplers connected to both ends of said arm waveguides.
253. **(New)** The optical waveguide circuit as claimed in claim 19, further comprising:
a UV written grating in said optical waveguide; and
a semiconductor laser diode mounted at an end of said optical waveguide,
wherein
said groove is formed across said optical waveguide between said UV written
grating and said semiconductor laser diode.
254. **(New)** The optical waveguide circuit as claimed in claim 208, further comprising:
a UV written grating in said optical waveguide; and
a semiconductor laser diode mounted at an end of said optical waveguide,
wherein
said groove is formed across said optical waveguide between said UV written
grating and said semiconductor laser diode.
255. **(New)** The optical waveguide circuit as claimed in claim 209, further comprising:
a UV written grating in said optical waveguide; and
a semiconductor laser diode mounted at an end of said optical waveguide,
wherein
said groove is formed across said optical waveguide between said UV written
grating and said semiconductor laser diode.

256. **(New)** The optical waveguide circuit as claimed in claim 34, further comprising:
a UV written grating in said optical waveguide; and
a semiconductor laser diode mounted at an end of said optical waveguide,
wherein
said groove is formed across said optical waveguide between said UV written grating and said semiconductor laser diode.
257. **(New)** The optical waveguide circuit as claimed in claim 222, further comprising:
a UV written grating in said optical waveguide; and
a semiconductor laser diode mounted at an end of said optical waveguide,
wherein
said groove is formed across said optical waveguide between said UV written grating and said semiconductor laser diode.
258. **(New)** The optical waveguide circuit as claimed in claim 223, further comprising:
a UV written grating in said optical waveguide; and
a semiconductor laser diode mounted at an end of said optical waveguide,
wherein
said groove is formed across said optical waveguide between said UV written grating and said semiconductor laser diode.
259. **(New)** The optical waveguide circuit as claimed in claim 37, further comprising:
a UV written grating in said optical waveguide; and
a semiconductor laser diode mounted at an end of said optical waveguide,
wherein
said groove is formed across said optical waveguide between said UV written grating and said semiconductor laser diode.

260. **(New)** The optical waveguide circuit as claimed in claim 224, further comprising:
a UV written grating in said optical waveguide; and
a semiconductor laser diode mounted at an end of said optical waveguide,
wherein
said groove is formed across said optical waveguide between said UV written grating and said semiconductor laser diode.
261. **(New)** The optical waveguide circuit as claimed in claim 225, further comprising:
a UV written grating in said optical waveguide; and
a semiconductor laser diode mounted at an end of said optical waveguide,
wherein
said groove is formed across said optical waveguide between said UV written grating and said semiconductor laser diode.
262. **(New)** The optical waveguide circuit as claimed in claim 7, wherein said first loss component consists of an intersection of said optical waveguide and another optical waveguide.
263. **(New)** The optical waveguide circuit as claimed in claim 199, wherein said first loss component consists of an intersection of said optical waveguide and another optical waveguide.
264. **(New)** The optical waveguide circuit as claimed in claim 200, wherein said first loss component consists of an intersection of said optical waveguide and another optical waveguide.
265. **(New)** The optical waveguide circuit as claimed in claim 1, wherein said optical waveguide consists of a slab waveguide.
266. **(New)** The optical waveguide circuit as claimed in claim 265, wherein said slab waveguide comprises a cladding and core composed of silica-based glass.

267. **(New)** The optical waveguide circuit as claimed in claim 266, wherein said first loss component consists of a groove formed by removing part of the cladding and core of said slab waveguide.

268. **(New)** The optical waveguide circuit as claimed in claim 267, wherein said groove consists of a plurality of grooves that divide said slab waveguide, and have uneven widths in accordance with positions of dividing said slab waveguide.

269. **(New)** The optical waveguide circuit as claimed in claim 267, wherein said groove consists of a plurality of grooves that are placed at specified spacings.

270. **(New)** The optical waveguide circuit as claimed in claim 267, wherein said groove is filled with a material different from a material of said core.

271. **(New)** The optical waveguide circuit as claimed in claim 270, wherein the material filling said groove has refractive index temperature dependence with a sign opposite to a sign of a temperature coefficient of an effective refractive index of said slab waveguide.

272. **(New)** The optical waveguide circuit as claimed in claim 267, wherein said groove includes an element with a specified function.

273. **(New)** The optical waveguide circuit as claimed in claim 272, wherein said element is fixed with an adhesive filling said groove.

274. **(New)** The optical waveguide circuit as claimed in claim 272, wherein said element consists of a half wavelength plate.

275. **(New)** The optical waveguide circuit as claimed in claim 266, wherein said second loss component consists of a waveguide gap formed by replacing part of the core of said slab waveguide with the cladding.

276. **(New)** The optical waveguide circuit as claimed in claim 267, wherein said second loss component consists of a waveguide gap formed by replacing part of the core of said slab waveguide with the cladding.

277. **(New)** The optical waveguide circuit as claimed in claim 275, wherein said waveguide gap consists of a plurality of waveguide gaps that divide said slab waveguide, and varies its widths in accordance with positions of dividing said slab waveguide.

278. **(New)** The optical waveguide circuit as claimed in claim 276, wherein said waveguide gap consists of a plurality of waveguide gaps that divide said slab waveguide, and varies its widths in accordance with positions of dividing said slab waveguide.

279. **(New)** The optical waveguide circuit as claimed in claim 275, wherein said waveguide gap consists of a plurality of waveguide gaps disposed at least one of before and after said first loss component with a specified spacing between said waveguide gaps, and said waveguide gaps reduce their width as they are distant from said first loss component.

280. **(New)** The optical waveguide circuit as claimed in claim 276, wherein said waveguide gap consists of a plurality of waveguide gaps disposed at least one of before and after said first loss component with a specified spacing between said waveguide gaps, and said waveguide gaps reduce their width as they are distant from said first loss component.

281. **(New)** The optical waveguide circuit as claimed in claim 271, wherein said optical waveguide circuit comprises:

- two slab waveguides consisting of first and second slab waveguides;
 - arrayed-waveguides for interconnecting first ends of said first and second slab waveguides; and
 - input and output waveguides connected to second ends of said first and second slab waveguides, respectively, and wherein
- said groove is formed across at least one of said two slab waveguides.

282. **(New)** The optical waveguide circuit as claimed in claim 274, wherein said optical waveguide circuit comprises:

- two slab waveguides consisting of first and second slab waveguides;
- arrayed-waveguides for interconnecting first ends of said first and second slab waveguides; and
- input and output waveguides connected to second ends of said first and second slab waveguides, respectively, and wherein

said groove is formed across at least one of said two slab waveguides.

283. **(New)** The optical waveguide circuit as claimed in claim 275, wherein said optical waveguide circuit comprises:

- two slab waveguides consisting of first and second slab waveguides;
- arrayed-waveguides for interconnecting first ends of said first and second slab waveguides; and
- input and output waveguides connected to second ends of said first and second slab waveguides, respectively, and wherein

said groove is formed across at least one of said two slab waveguides.

284. **(New)** The optical waveguide circuit as claimed in claim 276, wherein said optical waveguide circuit comprises:

- two slab waveguides consisting of first and second slab waveguides;
- arrayed-waveguides for interconnecting first ends of said first and second slab waveguides; and
- input and output waveguides connected to second ends of said first and second slab waveguides, respectively, and wherein

said groove is formed across at least one of said two slab waveguides.

285. **(New)** The optical waveguide circuit as claimed in claim 7, wherein said second loss component consists of a stripe-like core formed by replacing part of the core of said optical waveguide with the cladding in a stripe-like shape.

286. **(New)** The optical waveguide circuit as claimed in claim 199, wherein said second loss component consists of a stripe-like core formed by replacing part of the core of said optical waveguide with the cladding in a stripe-like shape.

287. **(New)** The optical waveguide circuit as claimed in claim 200, wherein said second loss component consists of a stripe-like core formed by replacing part of the core of said optical waveguide with the cladding in a stripe-like shape.

288. **(New)** The optical waveguide circuit as claimed in claim 10, wherein said second loss component consists of a stripe-like core formed by replacing part of the core of said optical waveguide with the cladding in a stripe-like shape.

289. **(New)** The optical waveguide circuit as claimed in claim 201, wherein said second loss component consists of a stripe-like core formed by replacing part of the core of said optical waveguide with the cladding in a stripe-like shape.

290. **(New)** The optical waveguide circuit as claimed in claim 202, wherein said second loss component consists of a stripe-like core formed by replacing part of the core of said optical waveguide with the cladding in a stripe-like shape.

291. **(New)** The optical waveguide circuit as claimed in claim 232, wherein said second loss component consists of a stripe-like core formed by replacing part of the core of said optical waveguide with the cladding in a stripe-like shape.

292. **(New)** The optical waveguide circuit as claimed in claim 233, wherein said second loss component consists of a stripe-like core formed by replacing part of the core of said optical waveguide with the cladding in a stripe-like shape.

293. **(New)** The optical waveguide circuit as claimed in claim 234, wherein said second loss component consists of a stripe-like core formed by replacing part of the core of said optical waveguide with the cladding in a stripe-like shape.

294. **(New)** The optical waveguide circuit as claimed in claim 235, wherein said second loss component consists of a stripe-like core formed by replacing part of the core of said optical waveguide with the cladding in a stripe-like shape.

295. **(New)** The optical waveguide circuit as claimed in claim 236, wherein said second loss component consists of a stripe-like core formed by replacing part of the core of said optical waveguide with the cladding in a stripe-like shape.

296. **(New)** The optical waveguide circuit as claimed in claim 237, wherein said second loss component consists of a stripe-like core formed by replacing part of the core of said optical waveguide with the cladding in a stripe-like shape.

297. **(New)** The optical waveguide circuit as claimed in claim 238, wherein said second loss component consists of a stripe-like core formed by replacing part of the core of said optical waveguide with the cladding in a stripe-like shape.

298. **(New)** The optical waveguide circuit as claimed in claim 239, wherein said second loss component consists of a stripe-like core formed by replacing part of the core of said optical waveguide with the cladding in a stripe-like shape.

299. **(New)** The optical waveguide circuit as claimed in claim 240, wherein said second loss component consists of a stripe-like core formed by replacing part of the core of said optical waveguide with the cladding in a stripe-like shape.

300. **(New)** The optical waveguide circuit as claimed in claim 241, wherein said second loss component consists of a stripe-like core formed by replacing part of the core of said optical waveguide with the cladding in a stripe-like shape.

301. **(New)** The optical waveguide circuit as claimed in claim 242, wherein said second loss component consists of a stripe-like core formed by replacing part of the core of said optical waveguide with the cladding in a stripe-like shape.

302. **(New)** The optical waveguide circuit as claimed in claim 243, wherein said second loss component consists of a stripe-like core formed by replacing part of the core of said optical waveguide with the cladding in a stripe-like shape.

303. **(New)** The optical waveguide circuit as claimed in claim 266, wherein said second loss component consists of a stripe-like core formed by replacing part of the core of said optical waveguide with the cladding in a stripe-like shape.

304. **(New)** The optical waveguide circuit as claimed in claim 267, wherein said second loss component consists of a stripe-like core formed by replacing part of the core of said optical waveguide with the cladding in a stripe-like shape.

305. **(New)** The optical waveguide circuit as claimed in claim 7, wherein said second loss component consists of a distributed core formed by replacing part of the core of said optical waveguide with the cladding in a dotted shape.

306. **(New)** The optical waveguide circuit as claimed in claim 199, wherein said second loss component consists of a distributed core formed by replacing part of the core of said optical waveguide with the cladding in a dotted shape.

307. **(New)** The optical waveguide circuit as claimed in claim 200, wherein said second loss component consists of a distributed core formed by replacing part of the core of said optical waveguide with the cladding in a dotted shape.

308. **(New)** The optical waveguide circuit as claimed in claim 10, wherein said second loss component consists of a distributed core formed by replacing part of the core of said optical waveguide with the cladding in a dotted shape.

309. **(New)** The optical waveguide circuit as claimed in claim 201, wherein said second loss component consists of a distributed core formed by replacing part of the core of said optical waveguide with the cladding in a dotted shape.

310. **(New)** The optical waveguide circuit as claimed in claim 202, wherein said second loss component consists of a distributed core formed by replacing part of the core of said optical waveguide with the cladding in a dotted shape.

311. **(New)** The optical waveguide circuit as claimed in claim 232, wherein said second loss component consists of a distributed core formed by replacing part of the core of said optical waveguide with the cladding in a dotted shape.

312. **(New)** The optical waveguide circuit as claimed in claim 233, wherein said second loss component consists of a distributed core formed by replacing part of the core of said optical waveguide with the cladding in a dotted shape.

313. **(New)** The optical waveguide circuit as claimed in claim 234, wherein said second loss component consists of a distributed core formed by replacing part of the core of said optical waveguide with the cladding in a dotted shape.

314. **(New)** The optical waveguide circuit as claimed in claim 235, wherein said second loss component consists of a distributed core formed by replacing part of the core of said optical waveguide with the cladding in a dotted shape.

315. **(New)** The optical waveguide circuit as claimed in claim 236, wherein said second loss component consists of a distributed core formed by replacing part of the core of said optical waveguide with the cladding in a dotted shape.

316. **(New)** The optical waveguide circuit as claimed in claim 237, wherein said second loss component consists of a distributed core formed by replacing part of the core of said optical waveguide with the cladding in a dotted shape.

317. **(New)** The optical waveguide circuit as claimed in claim 238, wherein said second loss component consists of a distributed core formed by replacing part of the core of said optical waveguide with the cladding in a dotted shape.

318. **(New)** The optical waveguide circuit as claimed in claim 239, wherein said second loss component consists of a distributed core formed by replacing part of the core of said optical waveguide with the cladding in a dotted shape.

319. **(New)** The optical waveguide circuit as claimed in claim 240, wherein said second loss component consists of a distributed core formed by replacing part of the core of said optical waveguide with the cladding in a dotted shape.

320. **(New)** The optical waveguide circuit as claimed in claim 241, wherein said second loss component consists of a distributed core formed by replacing part of the core of said optical waveguide with the cladding in a dotted shape.

321. **(New)** The optical waveguide circuit as claimed in claim 242, wherein said second loss component consists of a distributed core formed by replacing part of the core of said optical waveguide with the cladding in a dotted shape.

322. **(New)** The optical waveguide circuit as claimed in claim 243, wherein said second loss component consists of a distributed core formed by replacing part of the core of said optical waveguide with the cladding in a dotted shape.

323. **(New)** The optical waveguide circuit as claimed in claim 266, wherein said second loss component consists of a distributed core formed by replacing part of the core of said optical waveguide with the cladding in a dotted shape.

324. **(New)** The optical waveguide circuit as claimed in claim 267, wherein said second loss component consists of a distributed core formed by replacing part of the core of said optical waveguide with the cladding in a dotted shape.

325. **(New)** The optical waveguide circuit as claimed in claim 199, wherein said second loss component consists of a groove formed by removing part of the cladding and core from said optical waveguide, and wherein said groove is filled with air or a material with a specified refractive index.

326. **(New)** The optical waveguide circuit as claimed in claim 200, wherein said second loss component consists of a groove formed by removing part of the cladding and core from said optical waveguide, and wherein said groove is filled with air or a material with a specified refractive index.

327. **(New)** The optical waveguide circuit as claimed in claim 201, wherein said second loss component consists of a groove formed by removing part of the cladding and core from said optical waveguide, and wherein said groove is filled with air or a material with a specified refractive index.

328. **(New)** The optical waveguide circuit as claimed in claim 202, wherein said second loss component consists of a groove formed by removing part of the cladding and core from said optical waveguide, and wherein said groove is filled with air or a material with a specified refractive index.

329. **(New)** The optical waveguide circuit as claimed in claim 232, wherein said second loss component consists of a groove formed by removing part of the cladding and core from said optical waveguide, and wherein said groove is filled with air or a material with a specified refractive index.

330. **(New)** The optical waveguide circuit as claimed in claim 233, wherein said second loss component consists of a groove formed by removing part of the cladding and core from said optical waveguide, and wherein said groove is filled with air or a material with a specified refractive index.

331. **(New)** The optical waveguide circuit as claimed in claim 234, wherein said second loss component consists of a groove formed by removing part of the cladding and core from said optical waveguide, and wherein said groove is filled with air or a material with a specified refractive index.

332. **(New)** The optical waveguide circuit as claimed in claim 235, wherein said second loss component consists of a groove formed by removing part of the cladding and core from said optical waveguide, and wherein said groove is filled with air or a material with a specified refractive index.

333. **(New)** The optical waveguide circuit as claimed in claim 236, wherein said second loss component consists of a groove formed by removing part of the cladding and core from said optical waveguide, and wherein said groove is filled with air or a material with a specified refractive index.

334. **(New)** The optical waveguide circuit as claimed in claim 237, wherein said second loss component consists of a groove formed by removing part of the cladding and core from said optical waveguide, and wherein said groove is filled with air or a material with a specified refractive index.

335. **(New)** The optical waveguide circuit as claimed in claim 238, wherein said second loss component consists of a groove formed by removing part of the cladding and core from said optical waveguide, and wherein said groove is filled with air or a material with a specified refractive index.

336. **(New)** The optical waveguide circuit as claimed in claim 239, wherein said second loss component consists of a groove formed by removing part of the cladding and core from said optical waveguide, and wherein said groove is filled with air or a material with a specified refractive index.

337. **(New)** The optical waveguide circuit as claimed in claim 240, wherein said second loss component consists of a groove formed by removing part of the cladding and core from said optical waveguide, and wherein said groove is filled with air or a material with a specified refractive index.

338. **(New)** The optical waveguide circuit as claimed in claim 241, wherein said second loss component consists of a groove formed by removing part of the cladding and core from said optical waveguide, and wherein said groove is filled with air or a material with a specified refractive index.

339. **(New)** The optical waveguide circuit as claimed in claim 242, wherein said second loss component consists of a groove formed by removing part of the cladding and core from said optical waveguide, and wherein said groove is filled with air or a material with a specified refractive index.

340. **(New)** The optical waveguide circuit as claimed in claim 243, wherein said second loss component consists of a groove formed by removing part of the cladding and core from said optical waveguide, and wherein said groove is filled with air or a material with a specified refractive index.

341. **(New)** The optical waveguide circuit as claimed in claim 266, wherein said second loss component consists of a groove formed by removing part of the cladding and core from said optical waveguide, and wherein said groove is filled with air or a material with a specified refractive index.

342. **(New)** The optical waveguide circuit as claimed in claim 267, wherein said second loss component consists of a groove formed by removing part of the cladding and core from said optical waveguide, and wherein said groove is filled with air or a material with a specified refractive index.

343. **(New)** The optical waveguide circuit as claimed in claim 7, wherein said second loss component consists of an intersection of said optical waveguide and another optical waveguide.

344. **(New)** The optical waveguide circuit as claimed in claim 199, wherein said second loss component consists of an intersection of said optical waveguide and another optical waveguide.

345. **(New)** The optical waveguide circuit as claimed in claim 200, wherein said second loss component consists of an intersection of said optical waveguide and another optical waveguide.

346. **(New)** The optical waveguide circuit as claimed in claim 10, wherein said second loss component consists of an intersection of said optical waveguide and another optical waveguide.

347. **(New)** The optical waveguide circuit as claimed in claim 201, wherein said second loss component consists of an intersection of said optical waveguide and another optical waveguide.

348. **(New)** The optical waveguide circuit as claimed in claim 202, wherein said second loss component consists of an intersection of said optical waveguide and another optical waveguide.

349. **(New)** The optical waveguide circuit as claimed in claim 232, wherein said second loss component consists of an intersection of said optical waveguide and another optical waveguide.

350. **(New)** The optical waveguide circuit as claimed in claim 233, wherein said second loss component consists of an intersection of said optical waveguide and another optical waveguide.

351. **(New)** The optical waveguide circuit as claimed in claim 234, wherein said second loss component consists of an intersection of said optical waveguide and another optical waveguide.

352. **(New)** The optical waveguide circuit as claimed in claim 235, wherein said second loss component consists of an intersection of said optical waveguide and another optical waveguide.

353. **(New)** The optical waveguide circuit as claimed in claim 236, wherein said second loss component consists of an intersection of said optical waveguide and another optical waveguide.

354. **(New)** The optical waveguide circuit as claimed in claim 237, wherein said second loss component consists of an intersection of said optical waveguide and another optical waveguide.

355. **(New)** The optical waveguide circuit as claimed in claim 238, wherein said second loss component consists of an intersection of said optical waveguide and another optical waveguide.

356. **(New)** The optical waveguide circuit as claimed in claim 239, wherein said second loss component consists of an intersection of said optical waveguide and another optical waveguide.

357. **(New)** The optical waveguide circuit as claimed in claim 240, wherein said second loss component consists of an intersection of said optical waveguide and another optical waveguide.

358. **(New)** The optical waveguide circuit as claimed in claim 241, wherein said second loss component consists of an intersection of said optical waveguide and another optical waveguide.

359. **(New)** The optical waveguide circuit as claimed in claim 242, wherein said second loss component consists of an intersection of said optical waveguide and another optical waveguide.

360. **(New)** The optical waveguide circuit as claimed in claim 243, wherein said second loss component consists of an intersection of said optical waveguide and another optical waveguide.

361. **(New)** The optical waveguide circuit as claimed in claim 7, wherein said second loss component consists of a region having, by laser irradiation of part of the cladding of said optical waveguide, a refractive index higher than a refractive index of a region of the cladding not subjected to the laser irradiation.

362. **(New)** The optical waveguide circuit as claimed in claim 199, wherein said second loss component consists of a region having, by laser irradiation of part of the cladding of said optical waveguide, a refractive index higher than a refractive index of a region of the cladding not subjected to the laser irradiation.

363. **(New)** The optical waveguide circuit as claimed in claim 200, wherein said second loss component consists of a region having, by laser irradiation of part of the cladding of said optical waveguide, a refractive index higher than a refractive index of a region of the cladding not subjected to the laser irradiation.

364. **(New)** The optical waveguide circuit as claimed in claim 10, wherein said second loss component consists of a region having, by laser irradiation of part of the cladding of said optical waveguide, a refractive index higher than a refractive index of a region of the cladding not subjected to the laser irradiation.

365. **(New)** The optical waveguide circuit as claimed in claim 201, wherein said second loss component consists of a region having, by laser irradiation of part of the cladding of said optical waveguide, a refractive index higher than a refractive index of a region of the cladding not subjected to the laser irradiation.

366. **(New)** The optical waveguide circuit as claimed in claim 202, wherein said second loss component consists of a region having, by laser irradiation of part of the cladding of said optical waveguide, a refractive index higher than a refractive index of a region of the cladding not subjected to the laser irradiation.

367. **(New)** The optical waveguide circuit as claimed in claim 232, wherein said second loss component consists of a region having, by laser irradiation of part of the cladding of said optical waveguide, a refractive index higher than a refractive index of a region of the cladding not subjected to the laser irradiation.

368. **(New)** The optical waveguide circuit as claimed in claim 233, wherein said second loss component consists of a region having, by laser irradiation of part of the cladding of said optical waveguide, a refractive index higher than a refractive index of a region of the cladding not subjected to the laser irradiation.

369. **(New)** The optical waveguide circuit as claimed in claim 234, wherein said second loss component consists of a region having, by laser irradiation of part of the cladding of said optical waveguide, a refractive index higher than a refractive index of a region of the cladding not subjected to the laser irradiation.

370. **(New)** The optical waveguide circuit as claimed in claim 235, wherein said second loss component consists of a region having, by laser irradiation of part of the cladding of said optical waveguide, a refractive index higher than a refractive index of a region of the cladding not subjected to the laser irradiation.

371. **(New)** The optical waveguide circuit as claimed in claim 236, wherein said second loss component consists of a region having, by laser irradiation of part of the cladding of said optical waveguide, a refractive index higher than a refractive index of a region of the cladding not subjected to the laser irradiation.

372. **(New)** The optical waveguide circuit as claimed in claim 237, wherein said second loss component consists of a region having, by laser irradiation of part of the cladding of said optical waveguide, a refractive index higher than a refractive index of a region of the cladding not subjected to the laser irradiation.

373. **(New)** The optical waveguide circuit as claimed in claim 238, wherein said second loss component consists of a region having, by laser irradiation of part of the cladding of said optical waveguide, a refractive index higher than a refractive index of a region of the cladding not subjected to the laser irradiation.

374. **(New)** The optical waveguide circuit as claimed in claim 239, wherein said second loss component consists of a region having, by laser irradiation of part of the cladding of said optical waveguide, a refractive index higher than a refractive index of a region of the cladding not subjected to the laser irradiation.

375. **(New)** The optical waveguide circuit as claimed in claim 240, wherein said second loss component consists of a region having, by laser irradiation of part of the cladding of said optical waveguide, a refractive index higher than a refractive index of a region of the cladding not subjected to the laser irradiation.

376. **(New)** The optical waveguide circuit as claimed in claim 241, wherein said second loss component consists of a region having, by laser irradiation of part of the cladding of said optical waveguide, a refractive index higher than a refractive index of a region of the cladding not subjected to the laser irradiation.

377. **(New)** The optical waveguide circuit as claimed in claim 242, wherein said second loss component consists of a region having, by laser irradiation of part of the cladding of said optical waveguide, a refractive index higher than a refractive index of a region of the cladding not subjected to the laser irradiation.

378. **(New)** The optical waveguide circuit as claimed in claim 243, wherein said second loss component consists of a region having, by laser irradiation of part of the cladding of said optical waveguide, a refractive index higher than a refractive index of a region of the cladding not subjected to the laser irradiation.